

### **Amendments to the Claims**

This listing of claims will replace all prior versions, and listings of claims in the application:

#### **Listing of Claims:**

Claim 1 (Currently Amended): High-grade duplex stainless steel with high corrosion resistance, embrittlement resistance, castability and hot workability which suppresses formation of intermetallic phases including sigma ( $\sigma$ ) and khi ( $\chi$ ) phases, consisting essentially of 21.0 to 38.0% of Cr, 3.0 to 12.0% of Ni, 1.5 to 6.5% of Mo, 0 to 6.5% of W, 3.0% or less of Si, 1.0% or less of Al, 8.0% or less of Mn, 0.2 to 0.7% of N, 0.1% or less of C, 0.0001 to 0.6% of Ba, and a balance of Fe and incidental impurities on a weight basis, a pitting resistance equivalent (PREW) defined by following formula ① satisfying  $40 \leq \text{PREW} \leq 67$ :

$$\text{PREW} = \text{wt\%Cr} + 3.3(\text{wt\%Mo} + 0.5\text{wt\%W}) + 30\text{wt\%N} \text{ --- ①.}$$

Claim 2 (Currently Amended): The high-grade duplex stainless steel of claim 1, further containing 0.0001 to 1.0% of mischmetal (MM) and/or Y in total, wherein MM is total weight of Ce, La, Pr, Nd, Pm, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu, and Sc.

Claim 3 (Original): The high-grade duplex stainless steel of claim 2, wherein Ba is added within the range of 0.001 to 0.2%.

Claim 4 (Currently Amended): High-grade duplex stainless steel with high corrosion resistance, embrittlement resistance, castability and hot workability which suppresses formation of intermetallic phases including sigma ( $\sigma$ ) and khi ( $\chi$ ) phases, consisting essentially of 21.0 to 38.0% of Cr, 3.0 to 12.0% of Ni, 1.5 to 6.5% of Mo, 0 to 6.5% of W, 3.0% or less of Si, 1.0% or less of Al, 8.0% or less of Mn, 0.2 to 0.7% of N, 0.1 % or less of C, 0.0001 to 1.0% of MM and/or Y in total, and a balance of Fe and incidental impurities on a weight basis, wherein MM is total weight of Ce, La, Pr, Nd, Pm, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu, and Sc, a pitting resistance equivalent (PREW) defined by following formula ① satisfying  $40 \leq \text{PREW} \leq 67$ :

$$\text{PREW} = \text{wt\%Cr} + 3.3(\text{wt\%Mo} + 0.5\text{wt\%W}) + 30\text{wt\%N} - \text{①}.$$

Claim 5 (Previously Presented): The high-grade duplex stainless steel of one of claims 2 to 4, wherein a value of  $[\text{MM and/or Y+Al}] \cdot [\text{O+S}]$  which is an equation of solubility products of MM and/or Y, and Al, O and S of steel ranges from  $0.001 \times 10^{-5}$  to  $30000 \times 10^{-5} [\%]^2$ .

Claim 6 (Original): The high-grade duplex stainless steel of claim 5, wherein, in the case of a cast product, the value of the equation of the solubility products ranges from  $1 \times 10^{-5}$  to  $5000 \times 10^{-5} [\%]^2$ .

Claim 7 (Original): The high-grade duplex stainless steel of claim 5, wherein, in the

case of a hot working product, the value of the equation of the solubility products ranges from  $0.1 \times 10^{-5}$  to  $2000 \times 10^{-5} [\%]^2$ .

Claim 8 (Original): The high-grade duplex stainless steel of one of claims 2 to 4, wherein a total amount of MM and/or Y ranges from 0.01 to 0.6%.

Claim 9 (Original): The high-grade duplex stainless steel of claim 8, wherein the total amount of MM and/or Y ranges from 0.2 to 0.5%.

Claim 10 (Currently Amended): The high-grade duplex stainless steel of one of claims 1 to 4, further containing at least one element selected from the group consisting of 0.5% or less of Ca, 0.5% or less of Mg, ~~1.0% or less of Al~~ 0.5% or less of Ta, 0.5% or less of Nb, 1.5% or less of Ti, 1.0% or less of Zr, 1.0% or less of Sn and 1.0% or less of In.

Claim 11 (Original): The high-grade duplex stainless steel of one of claims 1 to 4, further containing 0.1% or less of B.

Claim 12 (Original): The high grade duplex stainless steel of one of claims 1 to 4, further containing one or more among 3.0% or less of Cu and 3.0% or less of Co.

Claim 13 (Original): The high-grade duplex stainless steel of one of claims 1 to 4,

wherein a value of  $[\text{PREW}(\gamma) - \text{PREW}(\alpha)]$  which is a corrosion resistance balance of austenitic phase and ferritic phase ranges from -5 to 10.

Claim 14 (Original): The high-grade duplex stainless steel of one of claims 1 to 4, wherein a volume fraction of ferritic phase ranges from 20 to 70%, and a volume fraction of austenitic phase ranges from 30 to 80% on a volume basis.

Claim 15 (Previously Presented): The high-grade duplex stainless steel of claim 10, further containing 0.1% or less of B.

Claim 16 (Previously Presented): The high grade duplex stainless steel of claim 10, further containing one or more among 3.0% or less of Cu and 3.0% or less of Co.

Claim 17 (Previously Presented): The high grade duplex stainless steel of claim 11, further containing one or more among 3.0% or less of Cu and 3.0% or less of Co.